

Appl. No. 10/552,236
Amdt. Dated November 10, 2008
Reply to Office Action of July 9, 2008

...REMARKS/ARGUMENTS...

The Official Action of July 9, 2008 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment, the limitations of claims 15, 16 and 18 have been incorporated into independent claim 1.

In addition, the remaining claims have been amended to correspond to the changes to claim 1.

Entry of the changes to the claims is respectfully requested.

Claims 1-3 and 5-26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese reference no. 2003-105320 to Wantanabe et al. in view of Japanese reference no. 08-092342 to Otaka et al.

For the reasons set forth below it is submitted that all of the pending claims are patentable over the combination of Wantanabe et al. and Otaka et al. and therefore, the outstanding rejection of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Watanabe et al. as setting:

...forth liquid compositions for making gaskets used in HDD application via methods using an automated x-y-z coating robot. Said composition comprises a liquid carbonate modified polyurethane acrylate, a diluent (acrylic monomers of formulas 1 and/or 2), and a photoinitiator. Said polyurethane acrylate is obtained by the reaction

Appl. No. 10/552,236
Amdt. Dated November 10, 2008
Reply to Office Action of July 9, 2008

of a polycarbonate polyol having a molecular weight of 1K to 3K, a diisocyanate compound, which can be aliphatic, alicyclic and/or aromatic, a polyhydric alcohol having (meth)acrylic groups. Per examples, there is an addition of 5.0 weight percent of a trivalent alcohol – a polyether diol obtained from trimethylol propane. Per examples, JP'320 sets forth the addition of the photoinitiator prior to the terminal (meth) acrylating reaction and the addition of a hindered phenolic antioxidant (Irganox 1010, mw. 1178).

The Examiner concedes that:

Watanabe et al does not expressly teach the addition of a compound such as component (E) in the instantly written claims.

However, the Examiner takes the position that:

...it is known in the prior art to add dimethacrylate compounds of alkylene glycol, wherein the alkylene group is substituted by a lower alkyl group having 1 to 5 carbon atoms, such as found in JP 08-092342 to Otaka et al.

It is noted that the teachings of Watanabe et al. are discussed on 2 of applicants' specification

where it is disclosed:

To overcome the problem [too low of a viscosity for use with a coating robot], processes for efficiently producing HDD gaskets having a chevron-shaped cross-section with a high sealability by an automatic coating robot from a photo-curable liquid material with an improved thixotropic property by addition of an inorganic filler have been proposed (JP-A-2001-225392 and JP-A-2003-105320). However, these processes would be inadequate for the production of HDD gaskets now requiring a high humidity barrier function due to the presence of the inorganic filler of highly hydrophilic property.

Thus, as presented and claimed, applicants' invention provides for a gasket molding material that has a desired viscosity (for use with an automatic coating robot) that avoids the use of an

Appl. No. 10/552,236
Amdt. Dated November 10, 2008
Reply to Office Action of July 9, 2008

inorganic filler which was found to cause problems in the prior art of JP-A-2003-105320 (Watanabe et al.). Such problems, as noted in applicants' *Background Art* section involve the lack of a suitable humidity or moisture barrier when inorganic fillers are used, because of their inherent highly hydrophilic properties.

As described in paragraph [0026] of Watanabe et al., when discharging the liquid gasket material by a coating robot, it is necessary to add thickeners, such as an inorganic filler in order to provide the UV-curable liquid gasket material with a high thixotropy so that the discharged shape and productivity are in a desired state. However, applicants have determined that the use of such inorganic fillers provides a poor barrier to humidity and moisture due to the highly hydrophilic nature of inorganic fillers.

To support the necessity of inorganic fillers, Watanabe et al, includes Comparative Example 1 in which no inorganic filler was used. As a result, in Comparative Example 1 the average height, average width, and ratio of average height/width of a test gasket did not have a sufficient viscosity as a gasket molding material applicable to an automatic coating robot.

Applicants' disclosed and claimed invention does involve the use of inorganic fillers and thus is distinguishable over Watanabe et al. in composition and in performance properties, including a humidity barrier.

The Examiner has relied upon Otaka et al. as teaching that it is known in the prior art to add dimethacrylate compounds of alkylene glycol, wherein the alkylene group is substituted by a lower alkyl group having 1 to 5 carbon atoms.

Appl. No. 10/552,236
Amdt. Dated November 10, 2008
Reply to Office Action of July 9, 2008

Otaka et al. is directed to compositions from which to make plastic films. As such, the teachings of Otaka et al. are not at all applicable to improvements in compression characteristics or other properties that are associated with gasket materials.

Certainly, the teachings of Otaka et al. are not at all relevant to gasket molding materials that designed and formulated to have properties and characteristics that are suitable for application with automatic coating robots.

Thus, the teachings of Otaka et al. are not relevant to the improvements over the prior art that are associated with applicants' claimed invention, let alone relevant to the teachings of Watanabe et al. otherwise.

As held by the CAFC in *In re Sernaker*:

In order for a combination of references to render an invention obvious, the combination of the teachings of all or any of the references must suggest, expressly or by implication, the possibility of achieving further improvement by combining such teachings along the line of the invention, and that prior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining their teachings. *In re Sernaker* 217 USPQ 1, at 5,6 (CAFC 1983).

Clearly the teachings of Otaka et al, which the Examiner has combined with and used to modify Watanabe et al. do not suggest achieving further improvement along the line of applicants' disclosed invention.

Applicants avoid the use of inorganic fillers in order to avoid the poor humidity barrier properties associated with the use of inorganic fillers.

Appl. No. 10/552,236
Amdt. Dated November 10, 2008
Reply to Office Action of July 9, 2008

Watanabe et al. specifically requires inorganic fillers and thus is not suitable for gaskets that provide good humidify barriers.

The teachings of Otaka et al. do not eliminate the use of inorganic fillers in Watanabe et al. and thus do not overcome the problem of humidity passing through the gaskets of Watanabe et al.

Moreover, as noted above, the teachings of Otaka et al. are not at all relevant to Watanabe et al.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.


It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

Appl. No. 10/552,236
Amdt. Dated November 10, 2008
Reply to Office Action of July 9, 2008

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



Michael S. Gzybowski
Reg. No. 32,816

BUTZEL LONG
350 South Main Street
Suite 300
Ann Arbor, Michigan 48104
(734) 995-3110